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10/824,364	04/15/2004	Chang Nam Kim	K-0633	6307

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EXAMINER	
GUHARAY, KARABI	
ART UNIT	**PAPER NUMBER**
2889	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/824,364	KIM, CHANG NAM	
	Examiner	Art Unit	
	Karabi Guharay	2889	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *Amendment, filed on 1/18/2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-3,5 and 7-25* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-3,5 and 7-25* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

Response to Amendment

Amendment, filed on 1/18/2008 has been considered and entered.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 11-17, 20-21 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Murayama et al. (JP 2001-230073).

Regarding claim 1, Murayama et al. disclose an organic EL panel (Fig 11 & 15) comprising an emitting cell (1) comprising an anode strip (3a), a supplement electrode (3b ; see Fig 12 & Fig 8), an organic EL layer (8a of Fig 10), and a cathode strip (9 of Fig 12 & 15); a bulkhead (7) for insulating the emitting cell (1) from the anode strip (see Fig 12), and at least one supplemental bulkhead (15a of Figs 41-45) coupled to at least one side portion other than an end portion of the bulkhead 7 (see paragraphs 9-15 of English Translation), wherein the supplement bulkhead is coupled to at least one side portion other than said end portion of the bulkhead is connected at another side with another supplement bulkhead coupled to an adjacent bulkhead (though Murayama shows connection of supplemental bulkhead in Figs 48-49, wherein the supplemental bulk head 15a is coupled to the end portion, however, Murayama further teaches that it can be connected in case of all embodiments shown in Figs 40-47; see paragraphs 22 & 23 of English translation). Though Murayama is silent about sealant it is obvious to have a

peripheral sealant to enclose the display panel including all the emitting cells inside, in order to protect the sensitive organic EL elements of the cell from environment. Further since the supplemental bulk heads are connected so they are forming a barrier between the emitting cell and the sealant hence will separate sealant from permeating into the emitting cell.

Regarding claims 2 & 12, Murayama discloses that the supplemental bulkhead (15) is provided in an area between the emitting cell and a sealant (Fig 12, though sealant is not shown in figures, it is always positioned at the periphery of the substrate including emitting cells and bulkheads).

Regarding claims 3 & 13, Murayama discloses that the supplemental bulkhead is perpendicular, thus forming a predetermined angle with the bulkhead (7, see 12).

Regarding claim 14, Murayama discloses that the supplemental bulkhead includes 3 segments (see Fig 27).

Regarding claims 15 & 16, Murayama discloses that the supplemental bulkhead (15) comprises a first supplemental bulkhead segment perpendicular (or first predetermined angle) to and connected with at least one of the bulkheads; a second supplemental bulkhead segment parallel to said one of the bulkheads and connected with the first supplemental bulkhead segment; and a third supplemental bulkhead segment perpendicular (or a second predetermined angle) to said one of the bulkheads and connected with the second supplemental bulkhead segment (see Fig 26).

Regarding claim 17, Murayama discloses that the supplemental bulkhead comprises a first supplemental bulkhead segment curved to and connected with at least one of the bulkheads; a second supplemental bulkhead segment parallel to said at least one of the bulkheads and

connected with the first supplemental bulkhead segment; and a third supplemental bulkhead segment curved to said at least one of the bulkheads and connected with the second supplemental bulkhead segment (see Fig 28).

Regarding claims 20 & 21, Murayama discloses an organic EL display panel (Fig 48) comprising a plurality of emitting cells (area enclosing by anode strip 9) on an emitting region of a substrate; and a supplemental bulkhead (15a) angled between the emitting cell and the sealant (see Fig 47). Though Murayama is silent about sealant formed in a region other than the emitting region, it is obvious to have a peripheral sealant to enclose the display panel including all the emitting cells inside so as to protect and organic EL emitting cells from environment, and since the supplemental bulk head is angled and extends from the lateral side of the bulk head create a barrier so as to prevent sealant from permeating into the emitting region (shown in Fig 48). Further, it is elementary that mere recitation of a newly discovered function or property, inherently possessed by things in the prior art, does not cause a claim drawn to distinguish over the prior art. Additionally, where the Patent office has the reason to believe that a functional limitation asserted to be critical for establishing novelty in the claimed subject matter may, in fact, be an inherent characteristic of the prior art, it possesses the authority to require the applicant to prove that the subject matter shown to be in the prior art does not possess the characteristic relied on. *In Re Swinehart*, 169 USPQ 226 (CCPA 1971). Thus, the functional limitation of "so as to prevent a sealant from permeating into the emitting cell" is taught by Murayama et al. under the principles of functional inherency.

Regarding claim 22, Murayama discloses that the at least one supplemental bulkhead is coupled to two bulkheads (Fig 48).

Regarding claim 24, Murayama discloses a first bulk head (7) wherein the supplemental bulkhead (15a) is coupled to the first bulkhead at an angle substantially different from a 90° angle and at a location different from an end of the first bulkhead (see Fig 47).

Regarding claim 25, Murayama implicitly teaches that the supplemental bulkhead (15a) is coupled to another supplemental bulkhead, said another supplemental bulkhead coupled to a second bulkhead adjacent the first bulkhead at a location different from an end of the second bulkhead (though Murayama shows connection of supplemental bulkhead in Figs 48-49, as an example, wherein the supplemental bulk head 15a is coupled to the end portion, however, Murayama further teaches that it can be connected in case of all embodiments shown in Figs 40-47; see paragraphs 22 & 23 of English translation).

Claims 5, 7-10, 18-19 & 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant's Admitted Prior Art, and further in view of Murayama et al. (JP 2001-230073).

Regarding claims 5, 7, 9-10, 18-19 & 23, AAPA discloses a method of manufacturing an organic EL display panel having a plurality of emitting cells, comprising forming a supplemental electrode (103 of Fig 1) in a smaller width than an ITO strip, forming an insulating film (106), forming a bulkhead (107), forming an organic EL layer (104) and an anode strip (105) and adhering a seal cover (109) and a glass substrate (101) by a sealant, wherein the insulating film (106) is around the organic EL layer from a predetermined area including the sealant to a portion of the glass substrate (see Fig 1).

However, AAPA fails to disclose a supplemental bulkhead coupled to at least one side portion other than an end portion of the bulkhead formed at the same time with the bulkhead, and

the supplemental bulkhead is coupled to at one side to a lateral face of the bulkhead at a location other than an end portion of the bulkhead and is connected with another supplement bulkhead coupled to a lateral face of an adjacent bulkhead.

However, Murayama, in the same field of organic EL panel discloses forming a bulkhead (barrier 7) and at least one supplemental bulkhead (15a of Figs 41-45) coupled to at least one side portion other than end portion of the bulkhead at the same time and the supplemental bulkhead coupled to at one side to a portion other than an end portion of the bulkhead is connected with another supplement bulkhead coupled to an adjacent bulkhead (though Murayama shows connection of supplemental bulkhead in Figs 48-49, wherein the supplemental bulk head 15a is coupled to the end portion of bulkhead, however, Murayama teaches that supplemental bulk heads 15a can be connected in case of other embodiments shown in Figs 40-47).

Murayama further teaches that such configuration of bulkheads provide OLED with high reliability (see Abstract).

Thus, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate a supplemental bulkhead as taught by Murayama et al. in the device of AAPA, since this will provide high reliability of the display.

Regarding claim 8, AAPA further discloses forming a short ITO strip (102A of Fig 2A-2B), which is shorter than the ITO strip (102) between the bulkhead (107) and at least one other bulkhead (Fig 2D).

Response to Arguments

Applicant's arguments, filed on 1/8/2008 have been fully considered but they are not persuasive.

Applicant in Remark contends that the added limitation of "the supplement bulkhead coupled to at least one side portion other than said end portion of the bulkhead is connected with another supplement bulkhead coupled to an adjacent bulkhead" is not disclosed by Murayama publication (see Remarks, page 8).

However, examiner respectfully disagrees. Murayama teaches the connection of supplemental bulkheads of adjacent bulkheads in Figs 48-49, however, does not illustrate connection of supplemental bulkheads (15a) in the embodiments of Figs 40-47, where supplemental bulkhead is not at the end,

But, in paragraph 23, Murayama explicitly mentioned in paragraph 23 that "Furthermore, the above described embodiment, adjacent end parts of the divided walls (bulkhead) can be integrated" here, above described embodiments include figs 41-47, but as an example they show connections of adjacent supplemental bulkhead in case of Fig 48 & 49, but teach that such connections could be done to other varioations included in this embodiment also (see paragraph 22 & 23 of English translation).

With respect to arguments against rejection of claim 20, examiner respectfully presents, First of all (1) having a peripheral sealant to a display panel is obvious so as to enclose all the cells to protect organic EL elements from the environment.

Further examiner respectfully points out that sealants are always used to cover and enclose the organic display device, including all the pixels inside the cover to have a display

having different pixels (see Nagayama US 5962970) thus though not shown in Fig 12, emitting cells (1) divided by bulkheads (7 & 15) are enclosed by the sealant which is generally deposited at the periphery of the substrate encompassing all the banks or barriers. Since angled supplemental bulk head is positioned between the sealant and the emitting cells (1) of Fig 12, it will intrinsically prohibit sealant material to permeate into the emitting cells.

Second of all though Murayama does not disclose explicitly the feature" to prevent a sealant from permeating into the emitting cell, examiner presents (a) "to prevent a sealant from permeating into the emitting cell" is a functional recitation of this specific structure.

(b) Murayama has specific structure of Bulkhead as applicant. Though Murayama is reciting a different function of the structure, it does not conclude that this structure does not possess any other function (specifically the function as claimed in claim 20). Since structures are same as applicant's claimed structure, Murayama's structure will have the claimed function, since function follows structure.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karabi Guharay whose telephone number is 571-272-2452. The examiner can normally be reached on Monday-Friday 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minh-Toan Ton can be reached on 571-272-2303. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Karabi Guharay/
Primary Examiner, Art Unit 2889